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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,527	01/10/2002	Robert V. Bell	T-6093	6227

7590 06/23/2005  
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EXAMINER

DOROSHENK, ALEXA A

ART UNIT PAPER NUMBER

1764

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/043,527		BELL ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
		Alexa A. Doroshenk	1764	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.  
     4a) Of the above claim(s) 19-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-7, 9-18 is/are rejected.
- 7) ☒ Claim(s) 2,3,8 and 9 is/are objected to.
- 8) ☒ Claim(s) 1-23 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/10/02 &amp; 7/22/03</u> . | 6) <input type="checkbox"/> Other: ____.  |

*ee*

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-18, drawn to a process, classified in class 201, subclass 41.
  - II. Claims 19-23, drawn to an apparatus, classified in class 202, subclass 242.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the process as claimed can be practiced by another materially different apparatus such as a vessel which does not have a flanges or a side apperature.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Steven Ellinwood on June 6, 2005 a provisional election was made with traverse to prosecute the invention of group I, claims 1-18. Affirmation of this election must be made by applicant in replying to this Office action. Claims 19-23 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Drawings***

6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the closure housing and closure member mounted to a weight bearing structure of a gantry or trolley system (claims 17 and 18) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

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Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

7. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

**The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.**

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

8. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The claimed subject matter not supported by the specification is that of Claim 13 wherein the opening step is done at a temperature

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between -50°F and 110°F. The single example in the specification provides for removal at approximately 200°F (p. 14, lines 17).

### ***Third-Party Submission***

9. A third-party submission has been filed under 37 CFR 1.99 on February 24, 2004 in the published application.

To ensure that a third-party submission does not amount to a protest or pre-grant opposition, 37 CFR 1.99 does not permit the third party to have the right to insist that the examiner consider any of the patents or publications submitted. Furthermore, if the submission or part of the submission is not in compliance with 37 CFR 1.99, that noncompliant submission or part thereof will not be entered in the application file. Therefore, unless the examiner clearly cites a patent or publication on form PTO-892, Notice of References Cited and such reference is used in a rejection or its relevance is actually discussed during prosecution, consideration by the examiner of any patent or publication submitted in a third-party submission cannot be presumed.

If the applicant wants to ensure that the information in a third-party submission is considered by the examiner, the applicant should submit the information in an IDS in compliance with 37 CFR 1.97 and 37 CFR 1.98. An individual who has a duty to disclose under 37 CFR 1.56 should also submit any material information contained in a third-party submission to the Office in an IDS in compliance with 37 CFR 1.97 and 37 CFR 1.98 to ensure such material information is properly disclosed to the examiner.

### ***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant claims that the opening step (e) is done at a temperature between -50°F and 110°F, but only example in the specification provides for removal at approximately 200°F (p. 14, lines 17). The specification does not provide any information which would enable one skilled in the art to make or use the invention in the claimed temperature range.

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 1, 6, 10-12 and 14-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Lah (US 6,660,131 B2).

With respect to claim 1, Lah discloses a process for de-heading a coke drum comprising the steps of:

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sealing a de-heading system (10) to a coke drum (18) (col. 11, lines 65-67);  
moving a closure member (blind 106) within the housing of de-heading system (10) to open or close the orifice (col. 13, lines 11-15);  
feeding a hydrocarbon feed into the coke drum and coked (col. 8, lines 12-15);  
wherein the closure member closes the opening to the drum prior to coking (col. 13, lines 15-28) and the closure member is moved to an open position after coking to allow the coke to be removed from the drum (col. 13, lines 29-37); and  
wherein all of the required steps are repeated (col. 4, lines 4-8 and col. 8, lines 47-48).

Lah does not explicitly state that the hydrocarbon feed is fed into the drum through a line above the bottom of the vessel, but Lah does discuss the liquid running down the walls of the drum as it is filled (col. 8, lines 29-31) and figures 9 and 10 illustrate the bottom portion of the apparatus and do not show an inlet. Therefore, it is inherent that the apparatus of Lah would comprise a feed above the bottom of the drum.

With respect to claims 6 and 10, Lah discloses that the coke is allowed to drop through the orifice of the deheader valve into a coke chute and then to a pit or rail cars and wherein the chute is directly attached to the de-heading system (col. 9, lines 39-43).

With respect to claim 11, Lah further discloses wherein the closure member (blind 106) is moved by an actuator (col. 5, lines 32-40).

With respect to claim 12, Lah further discloses wherein the de-heading process can be a remote operation (col. 5, lines 3-6).



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With respect to claims 14 and 15, Lah further discloses wherein the closure member is a gate valve (col. 4, lines 4-8).

With respect to claim 16, Lah further discloses wherein the aperture opens to a diameter of 59-78 inches (col. 7, lines 64-67).

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 4 and 5 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lah (US 6,660,131 B2).

With respect to claim 4, Lah discloses wherein the coke manufacturing process is "under extreme temperature and pressure" and that a large force is applied to the blind (106) from the upper and lower seats "such that the system is substantially sealed and the pressure within the system is maintained" (col. 13, lines 61-66). Although Lah fails to disclose a specific pressure range for the seal, his teaching of the pressure effects on the seal render the pressure capabilities of the seal either inherent or obvious as operable from atmospheric to 500 psi.

With respect to claim 5, Lah discloses wherein the apparatus is operable at temperatures "upwards of 1,000°F" (col. 7, lines 55-57).

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16. Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lah (US 6,660,131 B2) as applied to claim 1 above, and further in view of Antalffy et al. (5,628,603).

With respect to claims 6 and 10, Lah discloses that the coke is allowed to drop through the orifice of the deheader valve into a coke chute and then to a pit or rail cars (col. 9, lines 39-43) and Lah also teaches the desire to have no exposure to the coke drum contents during the de-heading process (col. 9, line 63- col. 10, lines 1) but does not specifically state wherein the chute is sealed.

Antalffy et al. teaches an automated chute system which is a chute which can be locked into place (col. 2, lines 52-54) at the bottom of the coking vessel (10) and can work with any de-heading device (col. 2, lines 61-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the locking chute of Antalffy et al. for the chute of Lah since it ensures no exposure of the coke on the de-heading deck and in order to gain additional advantages taught by Antalffy et al., such as safety during possible coke cave ins, ease of retrofit, and that it does not interfere with the deheading operation (col. 2, line 59- col. 3, line 17).

17. Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lah (US 6,660,131 B2) as applied to claim 1 above, and further in view of Loth (US 6,367,803 B1).

With respect to claims 7 and 9, though Lah teaches that gaskets are not necessary for the operation of his system due to the high pressures of operation, Loth teaches sealing gaskets to go between flanges in the chemical and oil industries (col. 1,

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lines 11-14) which can withstand high pressures (col. 2, lines 21-22) made up of a corrugated metal coated with graphite (col. 4, lines 58-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the gasket of Loth in the arrangement of Lah in order to further ensure a seal that will withstand the high operational pressures of the coking process.

18. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lah (US 6,660,131 B2) as applied to claim 1 above, and further in view of Fruchtbaum et al. (5,228,825).

With respect to claims 17 and 18, Lah discloses wherein the de-heading system is bolted (50) to the coke drum fails to disclose any means by which the de-heading system and blind within are carried to or from the coking drum for bolting and unbolting.

Fruchtbaum et al. teaches that it is conventional for a coke drum de-heading system can be supported by a cart or trolley in order to support the head during bolting and unbolting to the coke drum (col. 1, lines 23-34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a cart or trolley, as taught by Fruchtbaum et al., in order to support the de-heading system during installation or removal from the coke drum.

***Allowable Subject Matter***

19. Claims 2, 3, 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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20. The following is a statement of reasons for the indication of allowable subject matter: Though the closest applied reference of Lah teaches that the de-heading system can be attached to the coke drum via a transition spool (col. 9, lines 39-43), the prior art neither teaches nor suggests wherein such a transition spool has a feed line attached in a side entry position nor wherein the heavy hydrocarbon feed line to the coker vessel is attached at a side entry position.

**Conclusion**

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexa A. Doroshenk whose telephone number is 571-272-1446. The examiner can normally be reached on Monday - Thursday from 9:00 AM - 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Alexa A. Doroshenk  
**ALEXA DOROSHENK**  
**PRIMARY EXAMINER**

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June 21, 2005